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(54) Title: PRODUCTION PROCESS OF GAMMA-CYHALOTHRIN

(57) Abstract: A process for the preparation of gamma-cyhalothrin comprising a) chlorinating 1R *cis*-Z 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethyl cyclopropanecarboxylic acid to give 1R *cis*-Z 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethyl cyclopropanecarboxylic acid chloride; b) esterifying 1R *cis*-Z 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethyl cyclopropanecarboxylic acid chloride with 3-phenoxy benzaldehyde in the presence of a source of cyanide to form a diastereoisomeric mixture of cyhalothrin isomers and c) epimerising the diastereoisomeric mixture under conditions in which the least soluble diastereoisomer crystallises from solution.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BEILSTEIN Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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X	US 3 835 176 A (MATSUO T ET AL) 10 September 1974 (1974-09-10) column 1, line 4 - line 43 column 2, line 41 - line 64 column 3, line 49 - line 56 column 3, line 65 - column 4, line 20; example 4	5
Y		1-4

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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Y	BENTLEY P D ET AL: "FLUORINATED ANALOGUES OF CHRYSANTHEMIC ACID" PESTICIDE SCIENCE, ELSEVIER APPLIED SCIENCE PUBLISHER. BARKING, GB, vol. 11, no. 2, 1980, pages 156-164, XP001104810 ISSN: 0031-613X cited in the application structure (XIX) and related preparation method provided on pages 163-164 -----	1-4
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